

need to detect it in parts per trillion have delayed the development of needed data, particularly food residues and magnification in the food chain, presence in beef fat, human milk, and so forth. These difficulties still persist to a lesser extent.

In 1978 the EPA issued a Rebuttable Presumption Against Registration (RPAR). RPAR is in an in-depth review of the risk/benefit analysis the agency conducts against suspect pesticides. Most of them were introduced many years ago when there were few or no requirements for testing pesticides before registration to determine their adverse effects upon human health or the environment and to develop adequate laboratory analytic methods for that purpose. The RPAR process was well underway with hearings scheduled in late 1979 when the emergency suspension was issued in February 1979. This suspension has successfully held through one administrative and two judicial hearings and has the effect of withholding certain uses of 2,4,5-T until the RPAR hearings produce a final decision.

The Oregon study is a limited but valid epidemiological study demonstrating a statistically significant increase in the spontaneous abortion rate index during 1972-77 among a group of women living in areas where 2,4,5-T was applied by air to forests every spring and sometimes in the fall as well. There was a statistically significant cross-correlation between the spontaneous abortion index and the amount and time of 2,4,5-T applications. The study included two control groups. The health information is based primarily on hospital records. Much of the work was carried out under contract with Colorado State University. There was no claim that the results of this or other epidemiological studies prove cause and effect relationships.

At any rate, the EPA cannot be accused of precipitous action based on one piece of information. It has been curtailing uses of 2,4,5-T, and accumulating considerable information on the subject since it was established in 1971. Further, the absence of reports of *intoxication* in the medical literature does not give a chemical a clean bill of health. Adverse effects can be long delayed and go undetected. Cancer and genetic defects may take years to develop and the cause or causes are more likely to go unrecognized. Other health problems due to exposure to chemicals in the environment, such as reproductive abnormalities, are very difficult to sort out from those due to other and unknown factors. Only

under particularly propitious circumstances can the primary tool for detection of relationships between adverse health effects and their potential causes in human population, the epidemiological study, be brought to bear. Waiting for the population to demonstrate the adverse effects on their health from untested chemicals placed in their environment without their knowledge or consent is crassly immoral. This process takes away civil rights from people and gives them to chemicals which are therefore considered innocent until proved guilty, usually by demanding overwhelming evidence reported in the scientific literature. Fortunately, the situation has changed with respect to introduction of new chemicals. They must now present considerable health and environmental impact data before they can be used. It is those chemicals which have been around for several decades, such as 2,4,5-T, which are presenting awkward problems of the type just described.

The California Department of Health Services has issued a policy statement supporting the EPA action, but suggesting EPA may not have gone far enough by excluding rice fields and rangelands from the emergency suspension.

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## Human Intestinal Parasites in a Farm Community

TO THE EDITOR: In an earlier communication, Dr. Ming M. Wong pointed out the need for "medical practitioners in our area [to be alerted] about the prevalence of parasitic diseases they may encounter in their practice[s]"<sup>1</sup> Dr. Wong expressed concern over the "importation of parasite populations (diseases) through the influx of migrant workers and foreign immigrants to the West Coast. . . ."<sup>1</sup> We did a survey for human intestinal parasites in Cantua Creek, a small farm labor community 60 miles southwest of Fresno, California, between April and August of 1975.

Cantua Creek had a population at that time of approximately 1,800 people including Mexican-Americans, Punjabis and Caucasians. The survey was of two camps (134 subjects). Three fecal samples per subject were collected and analyzed

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# CORRESPONDENCE

for ova and parasites by the Ritchie sedimentation technique and direct microscopic observation after staining with 2 percent D'Antoni iodine solution. Specific goals of the survey were (1) to determine parasite prevalence, (2) to determine if parasite transmission was occurring and (3) to correlate demographic information with parasite prevalence.

Figure 1 shows parasite prevalence according to nationality. The Punjabis (8 families, 48 subjects) had the greatest incidence of *Entamoeba histolytica*, *Entamoeba hartmanni*, *Entamoeba coli*, *Endolimax nana*, *Giardia lamblia*, *Iodamoeba bütschlii* and *Chilomastix mesnili*. They were the only nationality with *Ancylostoma duodenale* (species determined by hatching ova and observing the larvae). The Mexican-Americans (11 families, 71 subjects) had a prevalence of *Hymenolepis nana* equivalent to the Punjabis. One incident of infection from the *Taenia* sp was found in a 13-

year-old girl who had come from Mexico within the last few months. The only parasitic infection in a Caucasian (4 families, 13 subjects) was that of *G. lamblia* in a 7-year-old girl.

Transmission of *C. mesnili*, *E. coli*, *E. hartmanni*, *E. histolytica* and *G. lamblia* was probably occurring in Cantua Creek. Six subjects—aged 7 years, 3 years, 2 years, 1 year, 7 months, and 1 month—representing all three nationalities were infected with one or more of these protozoans. None of the subjects had ever lived outside of the United States. Four of the six persons had family members with the same parasitic infection, suggesting an intrafamilial transmission. There were no data suggesting contamination of a common water supply.

In summary, demographic information indicated that the occurrence of a particular parasite infection was correlated more with the nationality of

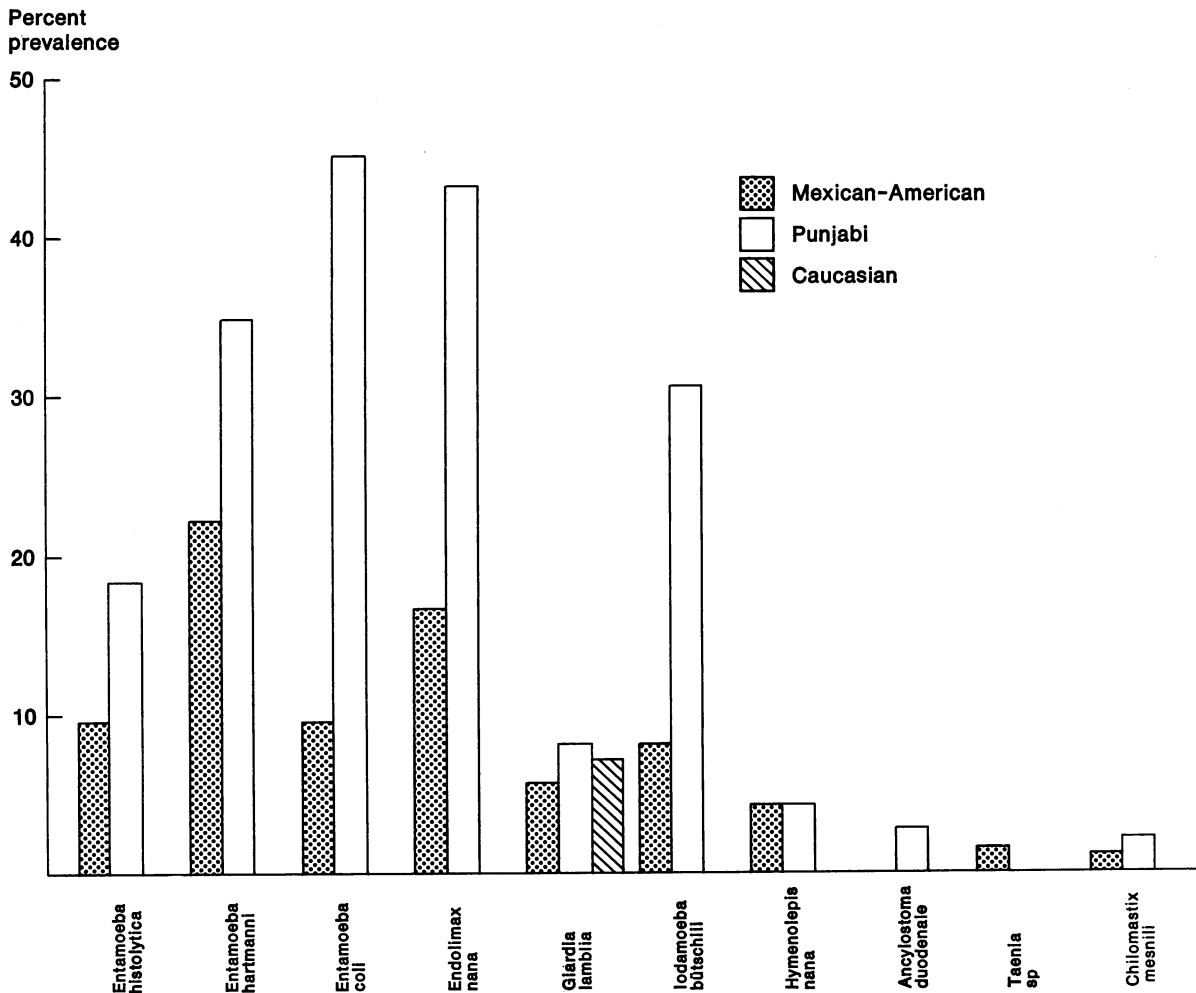


Figure 1.—Percentage of parasite prevalence by ethnic group

the person and where that person had previously lived than with the sex or age. It is appropriate to end this communication, as Dr. Wong ended her comments, by reaffirming the suggestion of Dr. David Sencer (in his delivery of the 33rd Charles Franklin Craig lecture in 1968) that "in this shrinking world one of the first questions that should be asked in taking the medical history is, 'Where have you been?' "<sup>2</sup>

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## Treatment of Gonococcal Pharyngeal Infections in Men

TO THE EDITOR: Gonococcal pharyngitis is being recognized as an increasingly common venereal infection. The natural history of the infection is as yet undefined. There is a suggestion in the literature that the gonococcus may exist as a transient pharyngeal colonizer similar to the meningococcus.<sup>1</sup> However, the pharynx may also serve as a locus for dissemination<sup>2</sup> and perhaps as a site for sexual transmission.

Clinicians are faced with the problem of selecting an appropriate therapeutic regimen, unfortunately there are few studies available evaluating the efficacy of current United States Public Health Service (USPHS) recommendations for the treatment of pharyngeal gonorrhea. This study is a retrospective review of our experience in the therapy of 139 cases of gonococcal pharyngitis in men treated according to current USPHS recommendations.<sup>3</sup>

### Patients and Methods

The charts of 139 men with gonococcal pharyngitis diagnosed and treated between January 1, 1978, and June 1, 1979, were randomly selected from the clinic files. Only those cases in which a follow-up culture was obtained within 4 to 14 days of completion of therapy were included in the study group. Therapeutic failures were specifically questioned by the examining physician regarding reexposure. Those with a history of reexposure were excluded from the study group.

All pharyngeal cultures were obtained in the

recommended manner using a cotton swab,<sup>4</sup> plated immediately on modified Thayer Martin media and incubated in candle jars within ten minutes of collection. Gonococci were identified by oxidase reaction and confirmed by sugar fermentation testing.

A total of 102 patients were treated with 4.8 million units of aqueous procaine penicillin G (APPG) given intramuscularly plus 1 gram of probenidol given orally; 37 received tetracycline, 500 mg orally four times per day for five days.

### Results

There were seven failures in 102 patients treated with the APPG regimen (5.9 percent failure rate). No failures were noted in the 37 patients treated with tetracycline.

### Comments

In spite of the increasing recognition of gonococcal pharyngeal infections, there is a paucity of therapeutic data to guide clinicians in choosing an antibiotic regimen. Compositing data from the most recent therapy review,<sup>5</sup> which included data from Weisner and co-workers' original review,<sup>6</sup> a total of 55 cases (men and women) were treated with APPG and there were five failures or a 9 percent failure rate. For tetracycline there were five failures in 39 treated cases, a 12.8 percent failure rate.

Our retrospective study is the largest single study in the current literature. A total of 139 cases of pharyngeal gonorrhea in men were reviewed. There were seven failures in 102 (5.9 percent) cases treated with APPG, no failures in 37 patients treated with tetracycline. Both of these regimens appear satisfactory for the treatment of pharyngeal gonorrhea. The high cure rate found with tetracycline suggests its potential use also in APPG treatment failures.

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